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TECHNICAL NOTES

LAKE STATES FOREST EXPERIMENT STATION UNIVERSITY FARM ST. PAUL 1, MINNESOTA

No. 295

The 1947 Forest Fire Season in the Lake States

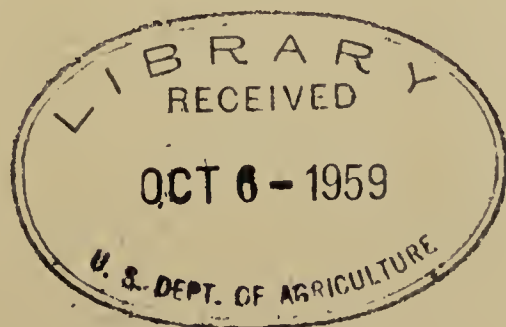
The 1947 fire season in the Lake States was slightly worse than average but much less severe than 1946. It was marked, however, by an unusually dry summer and extremely critical conditions in the fall. As a result, a number of large and costly fires occurred.

The spring fire season started late, about the tenth of April, and ended about the middle of May. June, July, and August were increasingly dry, resulting in more than the usual number of summer fires. September was generally wet, which temporarily relieved the situation, but lack of precipitation in October, together with low humidity and high winds, gave rise to acute conditions in central Minnesota, Wisconsin, and Michigan. As a result, the hunting season was temporarily closed in Wisconsin, and smoking and campfires in woodland areas were prohibited in Michigan until general rains late in the month ended the fire season.

Smoking was again the chief cause of forest fires, with railroads a close second. In 1947, these two causes alone were responsible for over 60 percent of the fires reported and for 37 percent of the area burned. The steady increase in the number of railroad fires the past few years has led all three states to urge the railroads to burn over their right-of-way as a means of safeguarding adjoining property.

While, like everything else, the cost of forest fire protection has increased materially the past few years, its effectiveness has also increased. This has been due primarily to the prompt and effective action on fires while still small made possible by modern equipment and more adequate and better trained protection organizations. Compared to 1936, the last year in which similar conditions prevailed, 1947 had 50 percent fewer fires, 75 percent less area burned, and a 60 percent decrease in the size of the average fire. While under normal conditions present protection in Michigan and Wisconsin may be considered adequate, large fires are still a problem and there is no assurance that an exceptionally dry year will not be disastrous.

A summary of forest fire statistics for state and private lands for 1947 appears on the back of this sheet.



April 1948

J. A. Mitchell, Silviculturist

Summary of
STATE FOREST FIRE STATISTICS
Calendar Year - 1947

Item	Michigan	Wisconsin	Minnesota	Totals	10-year avg. 1937-1946
Area protected - acres	15,928,000	15,653,000	18,142,000	49,723,000	48,462,000
Number of fires	1,539	1,398	935	3,872	3,350
Area burned - acres	24,851	16,007	60,014	100,872	89,109
Estimated damage	\$ 158,723	\$ 74,645	\$ 156,306	\$ 389,674	\$ 231,072
Cost: Fire prevention	\$ 1,298,480	\$ 691,177	\$ 677,450	\$ 2,667,107	\$ 1,525,506
Fire suppression	\$ 111,537	\$ 46,607	\$ 60,273	\$ 218,417	\$ 92,924
Total loss plus cost	\$ 1,568,740	\$ 812,429	\$ 894,029	\$ 3,275,198	\$ 1,849,502

Risk of fires starting - number per 100,000 acres protected	9.7	8.9	5.2	7.8	6.9
Risk of fires spreading - size of average fire (acres)	16.1	11.4	64.2	26.1	26.0
Risk of burning - percent of protected area burned	0.16	0.10	0.33	0.20	0.18
Destruction loss - average loss per acre burned	\$ 6.39	\$ 4.66	\$ 2.60	\$ 3.86	\$ 2.39
Risk of loss - average loss per acre protected	\$ 0.010	\$ 0.005	\$ 0.009	\$ 0.008	\$ 0.005
Cost of fire prevention - per acre protected	\$ 0.082	\$ 0.044	\$ 0.037	\$ 0.054	\$ 0.032
Cost of fire suppression - per fire	\$ 72.47	\$ 33.34	\$ 64.46	\$ 56.41	\$ 27.74
Effectiveness of fire control - percent of fires under 10 acres	86.7	94.0	66.0	84.4	78.1
Loss plus cost - per acre protected	\$ 0.098	\$ 0.052	\$ 0.049	\$ 0.066	\$ 0.038

Note: For 1946 statistics see Technical Note No. 280.